

## **REMARKS**

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for carefully considering this application and for the courtesies extended during the telephone interview.

### **Disposition of Claims**

Claims 1-6, 8, 9, 11, and 13 are pending in this application. Claims 1, 4, 5, and 13 are independent. The remaining claims depend, directly or indirectly, from claims 1, 4, or 5.

### **Rejection(s) under 35 U.S.C § 103**

Claims 1-6, 8, 9, 11, and 13 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,975,520 ("Shim") in view of U.S Patent No. 6,070,868 ("Nagato"). The rejection is respectfully traversed.

Claim 1 is directed to a sheet feeder having a sheet tray body disposed in such a way as to rotate around a shaft, which is provided in such a manner as to be nearly perpendicular to a sheet mounting surface, and enabled to be accommodated in a sheet feeder body. Further, the sheet feeder includes a stepped portion provided in said sheet tray body in such a fashion as to be placed in a connection portion, in which said sheet tray body and an upper edge part of a sheet mounting portion of said sheet feeder body are connected to each other, when said sheet tray body is used. Finally, the sheet feeder includes a thrusting member (13 in Figures 2 and 3 of the instant specification) provided on a rear surface of said sheet tray body (10 in Figures 2 and 3) for frontwardly pushing said sheet tray body when said sheet tray is used, wherein the thrusting member abuts a back cover (3 in Figures 2 and 3 of the instant specification) of said sheet feeder, when said sheet tray body is used and pushes the sheet tray body towards the sheet mounting surface.

The Examiner has admitted that Shim fails to teach an abutting thrusting member (Office Action mailed June 6, 2004, p.2). Further, the Applicant respectfully maintains that Nagato does not teach or suggest a thrusting member that abuts the *back cover* of the sheet feeder. The Applicant notes that the Examiner responded to the Applicant's previously submitted argument by stating that the "main tray disclosed by Nagato is part of a sheet feeder." (Office Action mailed June 6, 2004, p.4). In response to the Examiner's assertion that the main tray disclosed by Nagato is part of the sheet feeder, the Applicant respectfully asserts that the main tray is *not*

equivalent to the back cover (3 in Figures 2 and 3 of the instant specification) as recited in the claims. In particular, the main tray (21) disclosed in Nagato is part of the feed tray and *not* part of the main body of the sheet feeder. Further, as clearly shown in Figure 5 of Nagato, the main tray (21) extends outside the main body of the sheet feeder and does not perform any covering function. In contrast, the back cover (3 in Figures 2 and 3 of the instant specification) is part of the main body of the sheet feeder and performs a covering function (*i.e.*, to cover the print engine, etc. – see instant specification p. 13, ll. 8-15).

It is also important to note that the main tray (21), as admitted by the Examiner is “part of sheet feeder” (Office Action mailed June 6, 2004, p. 4). Thus, it is unclear to the Applicant how the main tray (21) which the Examiner admits is part of the sheet feeder (*i.e.*, integrated with the sheet feeder) and presumably in a fixed position can move towards the sheet mounting surface. In view the aforementioned points rebutted by the Applicant, the Applicant believes that claim 1 is patentable over the cited references.

Moreover, the Applicant respectfully submits that the thrusting member disclosed in Nagato does not provide a “frontwardly pushing” force as recited in the claims. Specifically, with reference to attached Sheet 1, during the operation of the sheet feeder in Nagato, the auxiliary tray (25) is rotably attached to the shaft provided on the main tray (21). When the auxiliary tray 25 rotates around the shaft, the ribs (29) abut with the projections (21e), thereby allowing the auxiliary tray (25) to be maintained in its open position. When the auxiliary tray (25) is in its opened position, a torque (*i.e.*, rotational momentum) **m** occurs around the shaft due to the gravity acting upon the auxiliary tray (25). The torque **m** causes the ribs (29) to push the projections (21e) with a force **F1** in a tangential direction with respect to the rotation of the auxiliary tray (25). At the same time, a stress **F2** that balances with the force **F1** acts on the ribs (29). Thus, the auxiliary tray (25) is retained in its opened position by the balance between the force **F1** and the stress **F2**. In this orientation, the ribs (29) and the projections (21e) are only preventing the auxiliary tray (25) from further rotating around the shaft, but the ribs (29) are *not* providing a “frontwardly pushing” force that moves the main tray (21) toward the sheet mounting surface.

In contrast, with reference to attached Sheet 2, when the sheet tray (10) is in its closed position in the present invention, the ribs (13) provided on the sheet tray (10) does not abut with the back cover (3). Therefore, the back cover (3) does not provide a thrusting force to the rib (13). However, when the sheet tray (10) is in the open position, the rib (13) abuts with the back

cover (3) and provides a thrusting force **F4** against the sheet tray (10). Simultaneously, the sheet mounting portion (4) connectively provided on the bottom cover (2) pushes the sheet tray (10) towards the back cover (3) with a force **F3** which balances with the thrusting force **F4**, whereby the sheet tray 10 is retained in its opened position.

Viewed another way, the ribs (29) disclosed in Nagato push the main tray (21) towards the sheet mounting surface with the force **F1**. However, the main tray 21 is pulled downwards by the auxiliary tray (25) at the location of the shaft with a force larger than the force **F1**. Thus, the force **F1** provided by the ribs (29) is acting as an **internal force** on the tray (*i.e.*, the combination of the main tray (21) and the auxiliary tray (25)), and is not acting as a “frontwardly pushing force” as recited in the claims. In contrast, in the present invention, a frontwardly pushing force **F4** results from the abutment between the rib (13) and the back cover (3) that is provided external to the sheet tray 10. In this manner, the force **F4** is acting as an **external force** on sheet tray (10), and *pushes* the sheet tray (10) (which is not fixed to the sheet feeder) towards the sheet mounting surface.

Additionally, Applicant respectfully submits herewith the expert declaration of Chiharu Matsukawa. This expert declaration sets forth Mr Matsukawa’s qualifications adequately to show that he is one skilled in the relevant art and that upon reading and understanding Nagato, he recognizes that the ribs disclosed in Nagato would not be considered equivalent to the thrusting members recited in claims 1, 4, 5, and 13. Thus, this declaration confirms that the ribs recited in Nagato are not equivalent to the thrusting members recited in the claims.

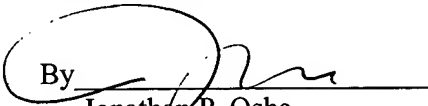
In view of the above, neither Shim nor Nagato, whether viewed separately or in combination, teach or suggest the invention as recited in the independent claim 1. Thus, independent claim 1 is allowable over the cited references. Further, remaining independent claims include similar patentable limitations to independent claim 1, and thus are patentable over the cited references for at least the same reasons. Further, dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

**Conclusion**

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 04995/039001).

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Respectfully submitted,

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